

INTERNATIONAL SEARCH REPORT

PCT/GB2005/000308

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G01N1/28 G01N27/447 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G01N C12Q B01L C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/045246 A1 (MCMILLAN WILLIAM A ET AL) 18 April 2002 (2002-04-18) abstract; figure 2 paragraph '0098! – paragraph '0099! paragraph '0068! – paragraph '0205! US 6 544 734 B1 (BRISCOE CYNTHIA G ET AL) 8 April 2003 (2003-04-08) column 1, line 39 – column 2, line 47 column 3, line 3 – column 6, line 8 abstract; figures 1,3 -/-/	1–6, 8–17, 19–32
X	 	1–8, 17–19, 22–30

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

24 May 2005

Date of mailing of the International search report

08/06/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL – 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Smith-Hewitt, L

INTERNATIONAL SEARCH REPORT

PCT/GB2005/000308

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/138941 A1 (GONG HAIQING ET AL) 24 July 2003 (2003-07-24) paragraph '0082! - paragraph '0087!; figures 1,11a,11b	1-8, 12-17, 22-30
Y	paragraph '0095! - paragraph '0102! paragraph '0120! - paragraph '0121! paragraph '0149! - paragraph '0153! paragraph '0158! - paragraph '0198!	19,20
Y	DE 197 00 364 A1 (BAYER AG, 51373 LEVERKUSEN, DE) 9 July 1998 (1998-07-09) page 2, line 25 - page 2, line 57	19,20
X	JOON-HO KIM ET AL: "A disposable DNA sample preparation microfluidic chip for nucleic acid probe assay" PROCEEDINGS OF THE IEEE 15TH. ANNUAL INTERNATIONAL CONFERENCE ON MICROELECTRO MECHANICAL SYSTEMS. MEMS 2002. LAS VEGAS, NV, JAN. 20 - 24, 2002, IEEE INTERNATIONAL MICRO ELECTRO MECHANICAL SYSTEMS CONFERENCE, NEW YORK, NY : IEEE, US, vol. CONF. 15, 2002, pages 133-136, XP010577613 ISBN: 0-7803-7185-2 the whole document	9-12, 26-32
X	WO 00/62931 A (CLINICAL MICRO SENSORS, INC; KAYYEM, JON, FAIZ) 26 October 2000 (2000-10-26) page 7, line 10 - page 16, line 22; figures page 38, line 28 - page 40, line 10	1-8, 12-17, 22-31
P, X	WO 2004/096443 A (NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN; BART) 11 November 2004 (2004-11-11) the whole document	1-32
A	US 5 229 297 A (SCHNIPELSKY ET AL) 20 July 1993 (1993-07-20) the whole document	1-32
A	EP 0 987 327 A (QIAGEN GMBH) 22 March 2000 (2000-03-22) abstract; claims 17,19,20	7,24,25
A	PRINZ ET AL.: "Bacterial Chromosome extraction and isolation" LAB CHIP, vol. 2, 2002, pages 207-212, XP009047795 the whole document	1-32
		-/-

INTERNATIONAL SEARCH REPORT

PCT/GB2005/000308

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SCHILLING E A ET AL: "CELL LYSIS AND PROTEIN EXTRACTION IN A MICROFLUIDIC DEVICE WITH DETECTION BY A FLUOROGENIC ENZYME ASSAY" ANALYTICAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY, COLUMBUS, US, vol. 74, no. 8, 15 April 2002 (2002-04-15), pages 1798-1804, XP001115858 ISSN: 0003-2700 the whole document -----	1-32
A	WATERS L C ET AL: "MICROCHIP DEVICE FOR CELL LYSIS, MULTIPLEX PCR AMPLIFICATION, AND ELECTROPHORETIC SIZING" ANALYTICAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY, COLUMBUS, US, vol. 70, no. 1, January 1998 (1998-01), pages 158-162, XP000733220 ISSN: 0003-2700 the whole document -----	1-32
A	ZHANG N ET AL: "AUTOMATED AND INTEGRATED SYSTEM FOR HIGH-THROUGHPUT DNA GENOTYPING DIRECTLY FROM BLOOD" ANALYTICAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY, COLUMBUS, US, vol. 71, no. 6, 15 March 1999 (1999-03-15), pages 1138-1145, XP000831550 ISSN: 0003-2700 the whole document -----	1-32

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/GB2005/000308

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002045246	A1	18-04-2002	US 6440725 B1 US 2002042125 A1 US 2002039783 A1 US 2002055167 A1 US 2002187547 A1 US 2001012612 A1 US 2002019060 A1	27-08-2002 11-04-2002 04-04-2002 09-05-2002 12-12-2002 09-08-2001 14-02-2002
US 6544734	B1	08-04-2003	US 6572830 B1 US 6592696 B1 AU 2082701 A CA 2393690 A1 EP 1237655 A2 JP 2003517591 T WO 0141931 A2 US 2003129646 A1 US 2003190608 A1 AT 236719 T AU 6418499 A CA 2346059 A1 DE 69906772 D1 DE 69906772 T2 EP 1314472 A1 EP 1123157 A1 ES 2197681 T3 JP 2002527254 T WO 0021659 A1 US 2003118481 A1 US 6527890 B1	03-06-2003 15-07-2003 18-06-2001 14-06-2001 11-09-2002 27-05-2003 14-06-2001 10-07-2003 09-10-2003 15-04-2003 01-05-2000 20-04-2000 15-05-2003 11-03-2004 28-05-2003 16-08-2001 01-01-2004 27-08-2002 20-04-2000 26-06-2003 04-03-2003
US 2003138941	A1	24-07-2003	EP 1440168 A2 JP 2005506541 T WO 03035229 A2 EP 1461454 A2 WO 03035909 A2 US 2003138819 A1	28-07-2004 03-03-2005 01-05-2003 29-09-2004 01-05-2003 24-07-2003
DE 19700364	A1	09-07-1998	AU 5985798 A WO 9830571 A1 EP 0958300 A1 JP 2001509258 T	03-08-1998 16-07-1998 24-11-1999 10-07-2001
WO 0062931	A	26-10-2000	AT 256500 T AU 771571 B2 AU 4368000 A CA 2370879 A1 DE 60007306 D1 DE 60007306 T2 DK 1183102 T3 EP 1183102 A1 EP 1391241 A1 ES 2213009 T3 JP 2002542461 T PT 1183102 T WO 0062931 A1	15-01-2004 25-03-2004 02-11-2000 26-10-2000 29-01-2004 16-09-2004 19-04-2004 06-03-2002 25-02-2004 16-08-2004 10-12-2002 31-05-2004 26-10-2000
WO 2004096443	A	11-11-2004	DE 10319045 A1 WO 2004096443 A1	09-12-2004 11-11-2004

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/GB2005/000308

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5229297	A 20-07-1993	CA 1338505 C DE 69009510 D1 DE 69009510 T2 DK 381501 T3 EP 0381501 A2 FI 94360 B IE 63501 B1 JP 2536945 B2 JP 3007571 A KR 161276 B1 KR 161352 B1 US 6645758 B1 AT 130373 T AU 1664092 A CA 2083173 A1 DE 69206080 D1 DE 69206080 T2 EP 0530357 A1 ES 2081613 T3 FI 925285 A JP 8030704 B JP 5507362 T WO 9216659 A1	06-08-1996 14-07-1994 05-01-1995 04-07-1994 08-08-1990 15-05-1995 03-05-1995 25-09-1996 14-01-1991 16-11-1998 01-10-1999 11-11-2003 15-12-1995 21-10-1992 22-09-1992 21-12-1995 13-06-1996 10-03-1993 01-03-1996 20-11-1992 27-03-1996 21-10-1993 01-10-1992
EP 0987327	A 22-03-2000	EP 0987327 A1 AT 235548 T DE 69906210 D1 DE 69906210 T2 EP 0992583 A1 JP 3304932 B2 JP 2000093171 A US 6242220 B1	22-03-2000 15-04-2003 30-04-2003 12-02-2004 12-04-2000 22-07-2002 04-04-2000 05-06-2001

VIII-4-1	<p>Declaration: Inventorship (only for the purposes of the designation of the United States of America)</p> <p>Declaration of Inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:</p>	<p>I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.</p> <p>This declaration is directed to the international application of which it forms a part (if filing declaration with application).</p> <p>I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.</p> <p>I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications", by application number, country or Member of the World Trade Organization, day, month, and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.</p>
VIII-4-1-1	Prior applications:	0401868.5, GB, 28 January 2004 (28.01.2004)

<p>I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.</p> <p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</p>		
VIII-4-1- 1-1	Name (LAST, First)	SCHONFELD, Friedhelm
VIII-4-1- 1-2	Residence: (city and either US State, if applicable, or country)	Mainz, Germany
VIII-4-1- 1-3	Mailing address:	c/o Institut fur Mikrotechnik Mainz GmbH Carl-Zeiss-Strasse 18-20 D-55129 Mainz Germany
VIII-4-1- 1-4	Citizenship:	DE
VIII-4-1- 1-5	Inventor's Signature: (If not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	
VIII-4-1- 1-6	Date: (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	

VIII-4-1- 2-1	Name (LAST, First)	VON GERMAR, Frithjof
VIII-4-1- 2-2	Residence: (city and either US State, if applicable, or country)	Mainz, Germany
VIII-4-1- 2-3	Mailing address:	c/o Institut fur Mikrotechnik Mainz GmbH Carl-Zeiss-Strasse 18-20 D-55129 Mainz Germany
VIII-4-1- 2-4	Citizenship:	DE
VIII-4-1- 2-5	Inventor's Signature: (If not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	
VIII-4-1- 2-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	
VIII-4-1- 3-1	Name (LAST, First)	KARLSEN, Frank
VIII-4-1- 3-2	Residence: (city and either US State, if applicable, or country)	Klokkarstua, Norway
VIII-4-1- 3-3	Mailing address:	Industriveien 8 N-3490 Klokkarstua Norway
VIII-4-1- 3-4	Citizenship:	NO
VIII-4-1- 3-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	
VIII-4-1- 3-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the International application)	

VIII-4-1- 4-1	Name (LAST, First)	LICHTENBERG, Jan
VIII-4-1- 4-2	Residence: (city and either US State, if applicable, or country)	Neuchâtel, Switzerland
VIII-4-1- 4-3	Mailing address:	c/o Institute of Microtechnology University of Neuchâtel Rue Jacquet-Droz 1 CH-2000 Neuchâtel Switzerland CH
VIII-4-1- 4-4	Citizenship:	
VIII-4-1- 4-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	
VIII-4-1- 4-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	
VIII-4-1- 5-1	Name (LAST, First)	VERPOORTE, Sabeth
VIII-4-1- 5-2	Residence: (city and either US State, if applicable, or country)	Neuchâtel, Switzerland
VIII-4-1- 5-3	Mailing address:	c/o Institute of Microtechnology University of Neuchâtel Rue Jacquet-Droz 1 CH-2000 Neuchâtel Switzerland CH
VIII-4-1- 5-4	Citizenship:	
VIII-4-1- 5-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	
VIII-4-1- 5-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	

VIII-4-1- 6-1	Name (LAST, First)	SETNA, Rohan, Piloo
VIII-4-1- 6-2	Residence: (city and either US State, if applicable, or country)	London, United Kingdom
VIII-4-1- 6-3	Mailing address:	Boult Wade Tennant Verulam Gardens 70 Gray's Inn Road London WC1X 8BT United Kingdom
VIII-4-1- 6-4	Citizenship:	GB
VIII-4-1- 6-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	
VIII-4-1- 6-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	